TEST REPORT OF AGGEGRATE IMPACT VALUE
IS: 2386 Part IV

Lab ID	:	**CP-2018-11-28-67** **Date: 12-09-18**
Customer	:	Assistant Executive Engineer,Kodigehalli Sub Division, BBMP, Bangalore.
Address	:	Kodigehalli Sub Division, BBMP, Bangalore.
Project Name	:	Patching pot holes in Main roads and cross roads of Balaji Layout bhadrappa layout Maruthinagara BB Nagara Shanthinikethana and surrounding areas in ward no.8
Agency	:	Sri. Sanjay Reddy H.J. #09. 'K' Main, Hosahalli, Vijayanagara, Bangalore-560040.
Customer Reference	:	BBMP/EE//BTP/WO/21/2018-19
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	10-09-18
Sample ID No	:	2018-11-28-67
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	10-09-18

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	300.6	300.4
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	76.2	76.1
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	224.1	223.8
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.3	0.5
5	Aggregate impact value	(B/A)*100	25.3	25.3
6	Aggregate impact value (Mean of two tests)	Pecentage	25.3	

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TEST RESULTS OF GRADATION FOR WMM

Lab ID	:	**CP-2018-11-28-67** **Date: 12-09-18**
Customer	:	Assistant Executive Engineer,Kodigehalli Sub Division, BBMP, Bangalore.
Address	:	Kodigehalli Sub Division, BBMP, Bangalore.
Project Name	:	Patching pot holes in Main roads and cross roads of Balaji Layout bhadrappa layout Maruthinagara BB Nagara Shanthinikethana and surrounding areas in ward no.8
Agency	:	Sri. Sanjay Reddy H.J. #09. 'K' Main, Hosahalli, Vijayanagara, Bangalore-560040.
Customer Reference	:	BBMP/EE//BTP/WO/21/2018-19
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	10-09-18
Sample ID No	:	2018-11-28-67
Type of Mix	:	WMM (Wet Mix Macadam)
Date of test	:	10-09-18
Oven Dry Weight	:	11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	326	326	3.0	97.0	95-100
22.4	2331	2657	24.2	75.8	60-80
11.2	2146	4803	43.7	56.3	40-60
4.75	2225	7028	63.9	36.1	25-40
2.36	1624	8652	78.7	21.3	15-30
0.6	642	9294	84.5	15.5	8-22
0.075	1326	10620	96.5	3.5	0-5

Note:-

The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

CIVIL Pro Sig..... Date..... BANGALORE

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-2018-11-28-67** **Date: 12-09-18**
Customer	:	Assistant Executive Engineer,Kodigehalli Sub Division, BBMP, Bangalore.
Address	:	Kodigehalli Sub Division, BBMP, Bangalore.
Project Name	:	Patching pot holes in Main roads and cross roads of Balaji Layout bhadrappa layout Maruthinagara BB Nagara Shanthinikethana and surrounding areas in ward no.8
Agency	:	Sri. Sanjay Reddy H.J. #09. 'K' Main, Hosahalli, Vijayanagara, Bangalore-560040.
Customer Reference	:	BBMP/EE//BTP/WO/21/2018-19
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	10-09-18
Sample ID No	:	2018-11-28-67
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	10-09-18

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.4%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	11.6%	
Combined Flakiness and Elongation Index for WMM	24.0%	

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

CIVIL Pro Sig..... Date..... BANGALORE

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-2018-11-28-67** **Date: 17-09-18**
Customer	:	Assistant Executive Engineer,Kodigehalli Sub Division, BBMP, Bangalore.
Address	:	Kodigehalli Sub Division, BBMP, Bangalore.
Project Name	:	Patching pot holes in Main roads and cross roads of Balaji Layout bhadrappa layout Maruthinagara BB Nagara Shanthinikethana and surrounding areas in ward no.8
Agency	:	Sri. Sanjay Reddy H.J. #09. 'K' Main, Hosahalli, Vijayanagara, Bangalore-560040.
Customer Reference	:	BBMP/EE//BTP/WO/21/2018-19
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	15-09-18
Sample ID No	:	2018-11-28-67/01
Type of Mix	:	BC-Plant (Bituminous Concrete)
Date of test	:	15-09-18
Oven Dry Weight	:	5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	80	80	1.6	98.4	90-100
9.5	714	794	15.9	84.1	70-88
4.75	882	1676	33.5	66.5	53-71
2.36	581	2257	45.1	54.9	42-58
1.18	593	2850	57.0	43.0	34-48
0.6	517	3367	67.3	32.7	26-38
0.3	529	3896	77.9	22.1	18-28
0.15	429	4325	86.5	13.5	12-20
0.075	353	4678	93.6	6.4	4-10
PAN	322	5000	100	0.0	0

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL PRO Sig..... Date..... BANGALORE

Page 1/1
End of Report

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-2018-11-28-67** **Date: 18-09-18**
Customer	:	Assistant Executive Engineer,Kodigehalli Sub Division, BBMP, Bangalore.
Address	:	Kodigehalli Sub Division, BBMP, Bangalore.
Project Name	:	Patching pot holes in Main roads and cross roads of Balaji Layout bhadrappa layout Maruthinagara BB Nagara Shanthinikethana and surrounding areas in ward no.8
Agency	:	Sri. Sanjay Reddy H.J. #09. 'K' Main, Hosahalli, Vijayanagara, Bangalore-560040.
Customer Reference	:	BBMP/EE//BTP/WO/21/2018-19
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	15-09-18
Sample ID No	:	2018-11-28-67/01
Type of Mix	:	BC(Bitumenous Concrete)
Date of test	:	15-09-18

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	97.0	3.0	97.2	Minimum Retained Coating 95%
2	97.5	2.5		
3	97.0	3.0		

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS CONCRETE

Lab ID	:	**CP-2018-11-28-67** **Date: 18-09-18**
Customer	:	Assistant Executive Engineer,Kodigehalli Sub Division, BBMP, Bangalore.
Address	:	Kodigehalli Sub Division, BBMP, Bangalore.
Project Name	:	Patching pot holes in Main roads and cross roads of Balaji Layout bhadrappa layout Maruthinagara BB Nagara Shanthinikethana and surrounding areas in ward no.8
Agency	:	Sri. Sanjay Reddy H.J. #09. 'K' Main, Hosahalli, Vijayanagara, Bangalore-560040.
Customer Reference	:	BBMP/EE//BTP/WO/21/2018-19
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	15-09-18
Sample ID No	:	2018-11-28-67/01
Type of Mix	:	BC (Bituminous Concrete)
Date of test	:	15-09-18

Table 500-16 : Physical Requirements fo Coarse Aggregate for Bituminous Concrete

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	12.4	Combined Flakiness & Elongation Index for BC is Maximum 35%	IS:2386 Part I
	Elongation Index	11.4		
Strength	Aggregate Impact Value	23.5	Maximum 24%	IS:2386 Part IV
Specific gravity	Specific gravity	2.62	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.19	Maximum 2%	IS:2386 Part III

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

CIVIL PRO Sig..... Date..... BANGALORE

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore.

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TESTS RESULTS ON STABILITY OF MIX

Lab ID	:	**CP-2018-11-28-67** **Date: 18-09-18**
Customer	:	Assistant Executive Engineer,Kodigehalli Sub Division, BBMP, Bangalore.
Address	:	Kodigehalli Sub Division, BBMP, Bangalore.
Project Name	:	Patching pot holes in Main roads and cross roads of Balaji Layout bhadrappa layout Maruthinagara BB Nagara Shanthinikethana and surrounding areas in ward no.8
Agency	:	Sri. Sanjay Reddy H.J. #09. 'K' Main, Hosahalli, Vijayanagara, Bangalore-560040.
Customer Reference	:	BBMP/EE//BTP/WO/21/2018-19
Source of Sample	:	Hot Mix Plant, Bangalore
Sample Condition	:	Satisfactory
Date of Receipt	:	15-09-18
Sample ID No	:	2018-11-28-67/01
Type of Mix	:	BC (Bituminous Concrete)
Date of test	:	15-09-18

The results of the tests conducted on the Bituminous Concrete mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.32	11.25	10KN(min)
2	Marshal flow at 60°C, mm	3.48	3.51	2-4
3	Percent air Voids	4.37	4.33	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.16	14.2	13-15
5	Percent Voids filled with Bitumen(VFB %)	70.35	71.28	65-75
6	Density, g/cc	2.24	2.23	–

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore.

CIVIL PRO Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Lab ID : **CP-2018-11-28-67** **Date: 21-09-18**

Customer : Assistant Executive Engineer,Kodigehalli Sub Division, BBMP, Bangalore.

Address : Kodigehalli Sub Division, BBMP, Bangalore.

Project Name : Patching pot holes in Main roads and cross roads of Balaji Layout bhadrappa layout Maruthinagara BB Nagara Shanthinikethana and surrounding areas in ward no.8

Agency : Sri. Sanjay Reddy H.J. #09. 'K' Main, Hosahalli, Vijayanagara, Bangalore-560040.

Customer Reference : BBMP/EE//BTP/WO/21/2018-19

Source of Sample : Sample supplied by Agency

Date of Receipt : 20-09-18

Sample ID No : 2018-11-28-64/05

Type of Mix : BC (Bituminous Concrete)

Date of test : 20-09-18

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	501
2	Weight of the sample After extraction	B	471	472
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	5.80	5.79
4	Average percentage	%	5.8	

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Lab ID : **CP-2018-11-28-67** **Date: 21-09-18**

Sample ID : **2018-11-28-64/05**

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 471

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.8	99.2	90-100
9.5	62	66	14.0	86.0	70-88
4.75	113	179	38.0	62.0	53-71
2.36	87	266	56.5	43.5	42-58
1.18	35	301	63.9	36.1	34-48
0.6	18	319	67.7	32.3	26-38
0.3	44	363	77.1	22.9	18-28
0.15	37	400	84.9	15.1	12-20
0.075	50	450	95.5	4.5	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 472

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	5	5	1.1	98.9	90-100
9.5	65	70	14.8	85.2	70-88
4.75	118	188	39.8	60.2	53-71
2.36	81	269	57.0	43.0	42-58
1.18	31	300	63.6	36.4	34-48
0.6	25	325	68.9	31.1	26-38
0.3	43	368	78.0	22.0	18-28
0.15	39	407	86.2	13.8	12-20
0.075	45	452	95.8	4.2	4-10

Note:-

The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Format No: CP/TF/01

TEST REPORT ON BITUMEN

Lab ID	:	**CP-2018-11-28-64** **Date: 12-09-18**
Customer	:	Assistant Executive Engineer,Kodigehalli Sub Division, BBMP, Bangalore.
Address	:	Kodigehalli Sub Division, BBMP, Bangalore.
Project Name	:	Patching pot holes in Main roads and cross roads of Balaji Layout bhadrappa layout Maruthinagara BB Nagara Shanthinikethana and surrounding areas in ward no.8
Agency	:	Sri. Sanjay Reddy H.J. #09. 'K' Main, Hosahalli, Vijayanagara, Bangalore-560040.
Customer's Reference	:	BBMP/EE//BTP/WO/21/2018-19
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	10-09-18
Sample ID No	:	2018-11-28-64/04
Sample Type	:	Bitumen
Reference to BIS codes	:	IS: 1201-1220(1978) (Reaffirmed-2004)
Date of test	:	11-09-18

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	**65**	60 to 70
2	Softening Point, °C	**51.4**	Min. 40°C
3	Ductility, cm	**93**	Min. 75cm
4	Flash point, °C	**246**	Min. 220°C
	Fire point, °C	**274**	

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 90 days from the date of issue of test certificate

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

CIVIL PRO Sig..... Date..... BANGALORE

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com